

IN THE CLAIMS:

Please cancel Claims 2, 7 to 10 and 13 to 23 without prejudice or disclaimer of subject matter, and amend Claims 1, 4 to 6, 11 and 12 as shown in the attached Appendix. The claims, as pending in the subject application, read as follows:

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1. (Amended) A data conversion method of performing image processing on image data expressed in plural components by using a multi-dimensional look-up table, and outputting processed image data, comprising the steps of:

setting grid positions of the multi-dimensional look-up table;

obtaining a value which represents distance from input image data to a grid point of the multi-dimensional look-up table, and which is normalized by a sufficiently large value;

obtaining output data of grid points of the multi-dimensional look-up table which corresponds to the input image data; and

calculating the processed image data, which corresponds to the input image data, by interpolation using the obtained output data and the obtained value, wherein the interpolation is executed by an integral operation.

2. Canceled.

3. (Not Amended From Previous Version) The method according to claim 1, wherein the sufficiently large value is a power of 2.

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3. (Amended) The method according to claim 1, wherein the grid points are set in non-uniformity, and the grid positions corresponding to each of the components are set the same.

4. (Amended) The method according to claim 1, wherein the input image data is expressed in one of RGB, CMY, and XYZ color spaces.

6. (Amended) A data conversion apparatus for performing image processing on image data expressed in plural components by using a multi-dimensional look-up table, and outputting processed image data, comprising:

a setting section, arranged to set grid positions of the multi-dimensional look-up table;

a first obtaining section, arranged to obtain a value which represents distance from a grid point of the multi-dimensional look-up table to input image data, and which is normalized by a sufficiently large value;

a second obtaining section, arranged to obtain output data of grid points of the multi-dimensional look-up table which corresponds to the input image data; and

a computation section, arranged to calculate the processed image data, which corresponds to input image data, by interpolation using the obtained output data and the obtained value, wherein the interpolation is executed by an integral operation.

7. to 10. Canceled.

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11. (Amended) A computer program product storing a computer readable medium having a computer program code, for a data conversion method of performing image processing on image data expressed in plural components by using a multi-dimensional look-up table, and outputting processed image data, the product comprising process procedure codes for:

setting grid positions of the multi-dimensional look-up table;

obtaining a value which represents distance from input image data to a grid point of the multi-dimensional look-up table, and which is normalized by a sufficiently large value;

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obtaining output data of grid points of the multi-dimensional look-up table which corresponds to the input image data; and

calculating the processed image data, which corresponds to the input image data, by interpolation using the obtained output data and the obtained value, wherein the interpolation is executed by an integral operation.

12. (Amended) A computer readable medium storing recorded data which is used in data conversion processing to process image data expressed in plural components by using a multi-dimensional look-up table, and to output processed image data, the recorded data comprising:

data for indicating grid positions of the multi-dimensional look-up table;

table data for obtaining a value which represents distance from a grid point of the multi-dimensional look-up table to input image data, and which is normalized by a sufficiently large value; and

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